THE DELAWARE AND HUDSON COMPANY BULLETIN

MAY 1, 1927

ON THE SALMON RIVER

The Wonder of the World

THE longer I live the more my mind dwells upon the beauty and the wonder of the world. I hardly know which feeling leads, wonderment or admiration. I have loved the feel of the grass under my feet, and the sound of the running streams by my side. The hum of the wind in the tree-tops has always been good music to me, and the face of the fields has often comforted me more than the faces of men. I am in love with this world; by my constitution I have nestled lovingly in it. It has been home. It has been my point of outlook into the universe. I have not bruised myself against it, nor tried to use it ignobly. I have tilled its soil, I have gathered its harvests, I have waited upon its seasons, and always have I reaped what I have sown. While I delved I did not loose sight of the sky overhead. While I gathered its bread and meat for my body, I did not neglect to gather its bread and meat for my soul. I have climbed its mountains, roamed its forests, sailed its waters, crossed its deserts, felt the sting of its frosts, the oppression of its heats, the drench of its rains, the fury of its winds, and always have beauty and joy waited upon my goings and comings.

—JOHN BURROUGHS.

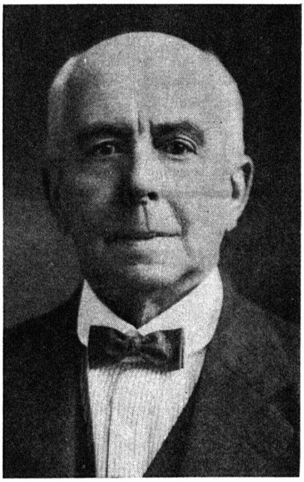
The
DELAWARE AND HUDSON COMPANY
BULLETIN

Vol. 7 Albany, N. Y., May 1, 1927 No. 9

Long A Chateaugay Runner

Fear of Being Misinterpreted, Due to the Great Change That Has Come In Railroad Work, Keeps Him, However, from Relating Many of His Experiences

RETICENCE is a mark of the successful man. He who has gone through much, who has accomplished much and who, thereby, has brought much credit to his work and to himself, quite often is a man of very few words. He prefers that his record, alone, should speak for him.



WILLARD S. WINTERS

But records sometimes fail to tell the whole story. They are somewhat harsh, as a rule, in that they stress outstanding facts to the exclusion of those of lesser significance but which are rich in human interest, nevertheless,— details upon which most records are actually founded. Thus only scant appreciation of what our pioneer railroad men endured is to be had from a perusal of their records which are but a trite compilation of the date of entry into the service, of one promotion and another, and, finally, the date of retirement. In between, it is possible to discern an unwritten story of devotion to duty, of doggedness of purpose, and love of profession, but even then the interesting details are lacking.

Sealed in the memory of these men is the real story of their success. Only on occasions when they meet those with whom they were once associated, men who like themselves know just what transpired during the earlier days of railroading, do they give voice to their recollections. Toward all others they maintain passive silence. The great gap between the days of woodburning engines and the "wild-catting" of trains over "single iron" and present day equipment and practices is so great as to make them feel that what they might tell of those early days would sound too mythical to be taken seriously. They loathe to be charged with exaggeration.

WILLARD S. WINTERS, of No. 130 Oak Street, Plattsburg, N. Y., a retired locomotive engineer enjoying a record of forty-one years and five months of continuous service, could tell a thrilling story of railroad life on the Chateaugay and other pioneer roads that served his home city, but he refrains from doing so. In fact, only friendly insistence that he tell us *something* and permit his photograph to be added to our already large veterans' album, won for our readers the meager story that follows:

He is the youngest of five children of the late Isaac Winters, and was born at Fort Covington, N. Y., November 23, 1855. His father was employed by C. F. Norton, a lumberman, and later conducted a boarding house about a mile and a half southwest of Plattsburg, where now is located an International Paper Company mill. Plattsburg and vicinity therefore have been the scene of his life's work.

It was not his good fortune long to attend school, In fact, he was only fourteen years old when he fared forth as a breadwinner. Hours were long and wages low in those days, but he displayed the determination, nevertheless, that brought him success as a railroad man. His first position was with Balch and Davis, a drug firm at Margaret and Clinton streets, Plattsburg, where now is located a cigar store, and for five years he was engaged in putting up patent medicines. He began work at 6 o'clock in the morning and his day did not end until 9 o'clock at midnight. His salary was two dollars a week and out of it he was obliged to pay his board at home.

Next he was employed by H. W. Cady & Company, druggists, at Margaret and Bridge streets, on the present site of the First National bank, in a much similar capacity. There he received $25 a month and had "every evening to himself after 9 o'clock." He was now fairly well launched on the road to success.

In 1879, however, he engaged in the work that no doubt exerted a great influence over his choice of a profession. At Lyon Mountain, where he was employed by Williams and Weed, he was entrusted with the operation of a hoisting engine. Some time later he was transferred to the roundhouse and machine shop and did some "spare" firing. with John Champagne, on the old narrow gauge engine *Chateaugay*, or No. 7, used for switching around the iron mine property. He liked this work and made good at it to the extent that at the end of eighteen months he was given the same engine to run for one summer, but the following winter went back firing again. This arrangement continued for two years, Bill Patten serving as his fireman.

Next, in turn, he became a regular fireman in freight service, with A. Fosburg, engineer on the *Dannemora*, or No. 8, between Lyon Mountain and Plattsburg. As he recalls it, the *Dannemora* was a six-wheel connected engine, with wheels three feet in diameter, cylinders measuring 16 by 18 inches, stroke of 18 inches, and weighed 65,000 pounds.

For three and a half years he worked with Fosburg. His duties were of the nature exacted of locomotive firemen in those days and, in addition to the task of firing, included keeping the engine clean and well polished, remaining with it at the conclusion of each trip until it had been coaled up, and boring the flues with a long augur every night, which work many times could not be finished before midnight. Fosburg, a strapping big fellow off the Ogdensburg road, was a sticker for clean engines and always inspected them most thoroughly. With chime whistles of great length, brass flagstaffs, and ornaments of various kinds and descriptions without number, the "sprucing" up of an engine was a most laborious task.

The tediousness of his work was lightened by the prospects of the day when he would ascend to the throttle. At last came the day, and he was happy, indeed. On July 1, 1886, he was promoted to an engineer and assigned to a gravel train in charge of Charles LaClair, then being used in filling in the culverts between Cadyville and Chazy Lake. George Place was his fireman and his engine was the *Lyon Mountain*, or No. 6, the first woodburner to be changed over for coal.

For two or three months he was engaged at that work when he was given the job of pulling a log train from Lyon Mountain to the pulp mills at Cadyville, for Pat Flynn. That winter approximately 45,000 cords of six-foot wood was handled by two or three trains, the wood being loaded on flat cars equipped with bulkheads, seven cords to a car. Trains were made up with from fifteen to twenty-two or three cars, with but two brakemen to operate the hand brakes on the down grades.

Next he was given a steady job running a switch engine in the yard at Plattsburg, but during the panic of '87 was set back to a fireman and worked between Plattsburg and Lake Placid with Ed. Hewitt, firing three weeks out of every month. Then he again when running in the Plattsburg yard on the old *Plattsburgh*. At one time when he had the *Governor Robinson* he was obliged also to do his own firing for a matter of five weeks.

Another trick done as a fireman, due to the exigencies of the service, and he again went running in freight service. On May 4, 1900, he bid in passenger trains Nos. 1 and 3, Plattsburg to Lake Placid and return each day. Business was good on the Chateaugay then, there being twenty-one or twenty-two trains in and out of Plattsburg each day. On this run he pulled Tim Long for fifteen years and then took the opposite side, Lake Placid to Plattsburg, and for seven years prior to his retirement on May 1, 1922, was obliged to lay over in Lake Placid although he never made it his home.

On August 2, 1884, he was married to Lucy

(Concluded on Page 140)

Delightful Veterans' Meeting

Arrangements at Oneonta Made It Possible for a Large Number of Our Veterans, and Their Wives, to Spend the Greater Part of a Day Together

"DELIGHTFUL in every way." This is the sum total of the many opinions freely expressed on every hand by those who attended the regular quarterly meeting of The Delaware and Hudson Veterans' Association, which was held in Oneonta, N. Y., on Sunday, April 10, last. PRESIDENT W. C. GURNEY, of Binghamton, N. Y., presided.

With the arrival of train No. 313 from Binghamton, at 9:25 a. m., the influx of veterans, accompanied in many instances by their wives or other members of their immediate families, began. At 11:10 a. m., train No. 314 brought others from Albany and intermediate points and a few minutes later a special train from Wilkes-Barre arrived, with a delegation of between sixty and seventy-five members from the Pennsylvania division. Accompanied by numerous local members, the party then proceeded to the Elks' home in Main street, where, at 12 o'clock, a turkey dinner was served in the Palm room.

It's the Handclasp

HO, brother, it's the handclasp and the good word and the smile,
That do the most and help the most to make the world worth while,
It's all of us together, or it's only you and I—
A ringing song of friendship and the heart beats high;
A ringing song of Friendship, and a word or two of cheer,
Then all the world is gladder and the bending sky is clear,
It's you and I together, and we're brothers one and all
Whenever through good fellowship we hear the subtle call.
Whenever in the ruck of things we grip the helping hand,
Or see the deeper glow that none but we may understand—
Then all the world is good to us, and all is worth the while.
Ho, brother, it's the handclasp and the good word and the smile.

—WILBUR DICK NESBIT

Every available seat in the big dining room was occupied. Reservations had been made for one hundred, but this was greatly exceeded. The management succeeded, however, in taking care of all without differentiating its service in the slightest particular and as a result none were heard to complain. On the other hand, expressions of satisfaction as to the quality of the food and the manner of serving it were many.

The scene in the dining room, animated by a constant din of lively conversation and hearty laughter, was such as to explain just why we have a Veterans' Association on The Delaware and Hudson. Intermingled with all else there was frequently to be heard musical hits of the day and not a few that were popular in the long, long ago, played by an orchestra composed of employes in the local car shops. Thus the dinner hour was turned into a highly enjoyable reunion.

Everything had been conveniently arranged for the veterans. Dinner over and they were obliged to travel only the width of a hallway to the expensively furnished lodge room where the meeting was to be held. Never were they permitted, as a result, to become separated and so the opportunity for renewing acquaintances could not have been greater.

At 1:45 p. m., PRESIDENT GURNEY rapped for order. The entire assembly then arose and repeated the Lord's Prayer in unison, following which one verse of America was sung. There followed then a most pleasing musical entertainment by Delaware and Hudson talent. This included selections by the Car department's orchestra; by the Misses Audrey and Dorothea Koch, the talented daughters of W. H. KOCH, track supervisor on the Susquehanna division; a male quartet composed of employes in the local shops; and JAMES WALSH, vocalist. Later on, other selections by these artists interspersed the transaction of business matters.

In a formal manner, customary on such occasions, the meeting proceeded with the roll call of officers, followed by the reading of the minutes of the last meeting and the reports of the secretary and treasurer, and the report of the finance committee, approval to all of which was unanimously given.

Thirty-eight applications for membership were read, seven being from the Pennsylvania division, twenty from the Susquehanna, nine from the Saratoga, and two from the Champlain, as follows:

PENNSYLVANIA DIVISION—Robert H. Cobb, Thomas Rothermel, John Toolan, G. B. W. Doud, Dominick Nicholas, John Gelsleighter and Patrick J. Fagan.

SUSQUEHANNA DIVISION—William H. Grace, Charles M. Mayo, Michael Murphy, Alphonse Altieri, John Delasco, L. G. Conklin, Saverio De-Lorenzo, Alvah C. Barney, Elizabeth Miller, Paul J. Powers, Henry J. C. Bennett, Frank M. Clink, Elmer Chase, Timothy Smith, F. L. Ellsworth, C. D. Rivenburg, Norman C. Davis, M. V. Beckstedt, Andrew Bleser and George A. Cuyle.

SARATOGA DIVISION—Joseph F. Osborn, Thomas F. Murray, George J. Corrie, Edwin J. Osborn, A. B. Cook, John Callahan, John Venchance, Darwin C. Gage and Edward Wight.

CHAMPLAIN DIVISION — William A. Wells and Harry P. Jones.

Acceptance of these applications was unanimous. The motion was made by A. M. BARTO and seconded by J. B. SAMPSON. Its adoption moved PRESIDENT GURNEY to make a most urgent plea that the membership of the Association be brought up to its fullest possible strength. He has prepared a letter which, with the approval of the executive committee, will be mailed to his associate officers urging their support to this end.

J. K. MCNEILLIE of the vice-president and general manager's office, was admitted to honorary membership, and the name of M. J. MCDONOUGH, division engineer on the Pennsylvania division, was proposed for similar courtesies and, in keeping with an established practice, was laid upon the table for action at the next meeting.

With the reading, then, of the names of seven deceased members, namely, Charles R. Gunsauls (February 16, 1927), Elliot Skeels (February 28, 1927), Fred M. Dix (March 8, 1927) and Horton C. Dilts (April 6, 1927), all of the Pennsylvania division; Albert M. McKenny (February 20, 1927) and Patrick Shea (March 16, 1927) of the Susquehanna division, and Richard Wheelock (March 31, 1927) of the Saratoga division, the members arose and stood one minute in silent prayer in tribute to their lives among them, James Walsh meanwhile singing "Abide With Me," in light refrain.

Since the date of organization a total of 1,575 members has been enrolled, 123 of whom have died, leaving a present membership of 1,452.

The report of the executive committee, rendered by its chairman, M. F. LEAMY, superintendent on the Susquehanna division, reflected an exhaustive study of the by-laws and recommended, among other things, certain changes that would better conform to the needs of the present organization and thereby facilitate its work and the work of its officers. Final action will be taken at the next meeting and meanwhile a copy of the report will be mailed to each member.

At the request of PRESIDENT GURNEY, several speakers then addressed the gathering and each, in his own individual way, expressed his pleasure at being able to be present, noted the enthusiasm that had been so evident throughout the day, and commended the officers for their loyal efforts in behalf of the Association. Those who spoke, in turn, were S. G. COBB, former president of the Association; GEORGE LORENZ, yard conductor at Carbondale, senior vice-president of the Association and president of the Gravity Veterans' Association; MR. LEAMY; GEORGE E. BATES, assistant to the vice-president for industrial development; J. B. SAMPSON, former secretary of the Association; and D. H. KELLEY, president of the Susquehanna division unit. In a way to be understood and appreciated by all, MR. LEAMY explained the law governing the issuance of free railroad transportation and the liberal policy adopted by our Management in relation thereto, and MR. BATES reminded the veterans that although our Company is now more than one hundred years old it is still pioneering in many ways. In this connection he brought to their attention what he chose to term, "The baby of our railroad," explaining how the Management had only recently aligned itself with the Boy Scouts of America and the reasons therefor.

In bringing the meeting to a close, E. W. LALOR, assistant trainmaster on the Susquehanna division, moved that a vote of thanks be extended to the members of the finance and executive committees, the car shop orchestra and quartet, the Misses Koch, the Elks, the Management for its special train service, the officers of the Association and all others who had helped to make the meeting a splendid success. E. R. SAMPSON of Nineveh, seconded the motion, following which it was unanimously adopted.

He sauntered into the strange office with much self-assurance and an air of familiarity, threw down his business card and inquired.

"Who's the main squeeze around here?"

"Well," replied he good-looking stenog, "they'd all take me for it if I'd let 'em."—*Selected.*

"The Show Off" Pleases Albany

It Now Goes On the Road and Some Interesting Facts Concerning The Delaware and Hudson Athletic Association By Which It Is Sponsored, Are in Order

ALBANY has witnessed and thoroughly enjoyed "The Show Off," The Delaware and Hudson Athletic Association's 1927 theatrical presentation. That is, our employes residing in and about New York's capital, their families and their friends have witnessed the production created by George Kelley—laughed over its many humorous situations, sighed through its climaxes, and been swept away from the verge of tears by quick and unexpected turns in affairs. On two successive evenings, April 26 and 27, this proved to be the case when capacity audiences filled Vincentian auditorium and in all the ways known to theatergoers conveyed to the cast, composed entirely of Delaware and Hudson talent, an appreciative acknowledgment of its splendid efforts.

Now the show, under the general management of F. L. **Hanlon**, supervisor of wage and working agreements, goes on the road. Opening at the Irving theater in Carbondale, on the evening of May 8, for the benefit of the Pennsylvania Division Athletic Association, it will be presented, in turn, at the Oneonta theater, Oneonta, for the benefit of the Susquehanna Division Athletic Association, on Tuesday evening, May 10; at Plattsburg on Monday evening, May 16, the proceeds going to endow a room in the Champlain Valley hospital; and, lastly, at Whitehall on the evening of Friday, May 27, for the benefit of the local shops' Athletic Association.

The cast, much the same as that seen a year ago in "The Old Soak," includes **Jean I. Becker**, **Ann M. Tiernan**, **Mildred M. Foley**, **George M. Lawlor**, **Jeremiah M. Crowley**, **Frank Mealy**, **Ogden J. Ross**, **John M. J. Flanagan** and **Paul B. LaPerche**. E. C. **LaPerche**, assistant supervisor of wage and working agreements, is business director; Frank Trenor, dramatic director; G. M. **Lawlor**, stage director; F. C. **Reardon**, publicity director; H. C. **Young**, advertising manager; and W. F. **Dollard**, chairman, ticket committee.

In view of the forthcoming tour a few facts concerning The Delaware and Hudson Athletic Association and its aims, briefly told, may be due our readers. The organization of the *Generals*, the baseball team that since 1921 has represented our Company and its employe family each season, with credit to all, was, in reality, the first move leading to the inception of the Association. Homeward bound from the final game of the 1921 season, which was played "out of town," the members of the team were discussing ways and means for assuring their return to the diamond the following spring. A minstrel show was suggested and that thought germinated into the present established theatrical custom.

In 1922, a league was formed which included the *Generals* and a club on each division. From a sporting standpoint this project was a great success, but the expense of maintaining it was so great as to preclude its continuance. There had been planted meanwhile, however, the baseball germ that has since exerted itself in the form of a strong team at several division points. Twilight leagues likewise have been organized with marked success.

The Association's theatrical ventures scarcely need recounting except to develop some facts not generally known. The original minstrel show, produced in 1922, was presented at Oneonta, Scranton, Whitehall and several other points. The 1923 Revue and 1924 Follies were too heavy to warrant road tours, but since the latter year the policy of adopting dramas in preference to musical productions has made it possible to present these plays in a way to make it possible for nearly every employe on the system to avail himself or herself of the opportunity of witnessing a group of their fellow workers whose dramatic efforts have won them notable success.

But what does all of this mean to me? someone may ask. It is necessary to refer no farther back than last year for the answer. It must be appreciated, of course, that whatever benefits a community benefits each resident thereof, our employes included. At Carbondale, "The Old Soak" was presented for the benefit of the Emergency hospital and a sum of approximately $1,500 was turned over to its management—a rather sizable contribution, it must be admitted. The Fox Memorial hospital at Oneonta profited to the extent of $500, while at Whitehall the proceeds went to the local Young Men's Christian Association. At Plattsburg, the play was presented for the purpose of endowing a scholarship for chil-

(Concluded on Page 142)

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Vol. 7 May 1, 1927 **No. 9**

Who misses, or who wins the prize,
Go, lose or conquer if you can;
But if you fall, or if you rise,
Be each, pray God, a Gentleman.
—VERILY.

How Do You Hurry?

NOT all so-called speedy automobile drivers may be classed as careless. Some drive their cars at fifty miles an hour with greater safety to themselves and others, than may be credited to many who prefer to go slower. The first are drivers of good judgment, as a rule, who know their cars thoroughly, go over them most carefully before taking them out, and who, when at the wheel, permit nothing whatsoever to distract their attention. Such may be rated as safe drivers at almost any speed. Certainly, they are safer by far than are those others who drive at a snail's pace, yet never inspect their cars in search of worn or loose parts and who, when at the wheel, permit their gaze and their thoughts to wander afar.

* * *

Turning from the automobile to the railroad we find a striking simile. How do you hurry? The alibi of "Too much hurry," no longer justifies an accident. Your chances of avoiding mishaps are greatly increased when your thoughts are centered in your work to the exclusion of all else and your interest is such that you are able not alone to follow closely the details of the moment but to anticipate, also, those immediately ahead. Don't you see how much safer it is to work at top speed under these conditions than it is to slow down to a pace that permits your thoughts to wander off the job and thereby leave you exposed to danger?

* * *

And now the automobile and the railroad. We are entering upon the season of the year when the automobile's popularity reaches its greatest height. There will be accidents in which the pleasure car, in particular, will figure; we shall learn of them in astounding numbers. Despite the vigilance of our locomotive engineers and the precautionary efforts of our Maintenance of Way people, trains and automobiles will be in collision at grade crossings. What a sad commentary upon our system of training it will be if such an accident involves a railroad man, the driver of an automobile; and how much sadder it will be if it is established, upon investigation, that faulty brakes on his car were the contributing cause. Every Mechanical and every Transportation department employe is aware of the vigilance exacted in an effort to maintain the efficiency of our air brake equipment at 100 per cent at all times. By exercising this same precaution in the maintenance of their automobiles, railroad folk may contribute greatly to their personal safety and to that of all who use our highways.

Workers All

One with ledger, ink, and pen; one with sledge and stone;
Yet we are toilers, builders both, and neither toils alone.
One at desk and swivel-chair; one in the flaming mill;
And so our world roars on, and man works out his conquering will.

Plodding hoofs and gleaming share that cleaves the fragrant loam,
Until the ripening wheat fields blaze in floods of amber foam;
Far as the stars that sturdy toil seem from our city's towers,
And yet our work is one with that, and it is part of ours.

Here the hand that bares the ore or fells the towering pine;
There the brain that moulds the whole in close-knit design;
One the throttle's wise control; one the speeding gear;
And who can name them great or small, since both are needed here;

Mill or office, field or mine, hill hush or city din,
Each in his separate way we go yet each to the other kin;
Workers all! With a common prize to share at the set of sun—
A dream of the goodly world we build, and the joy of a task well done!
—TED OLSON.

Nine Digits, A Cipher and Punched Holes

II — In the Beginning

THE compilation of statistics is by no means a modern thought. It was one of the very earliest evidences of civil administration. In one form or another the collecting of data has been a fixed governmental function for more than three thousand years. Herodotus speaks of the division of the land of Egypt by Rameses II, by methods which could have been accomplished only through an accurate registration of the population. In the books of the Old Testament—in *Numbers* and *Chronicles*—we are told of the census of Judaea. In the history of ancient Greece and Rome there are many evidences which point to inquiries of a statistical turn.

Solon established a tax census by means of which he divided the people into four classes according to their rank and property as measured in wheat; also, he imposed a tax upon aliens, which indicated a division of the population into native and foreign born. Under the Roman Censors a census was repeated sixty-nine times in four hundred and seventy years. Births were registered in the Temple of Juno Lucina, and deaths in the Temple of Libitina.

During the Middle Ages the lack of constituted authority caused many of the customs that had prevailed in more remote times to fall into disuse, but the transition from mediaeval chaos to the more orderly forms of state government which began in the fifteenth century—such as the establishment of definite boundaries, and the general longing for peace and security upon the part of the people—gave a decided impetus to work of this nature. With organized government came the necessity for a definite knowledge of the resources of a country,—financial, military and political; and in order that existing states might remain intact it was necessary to ascertain the strength and power of other states.

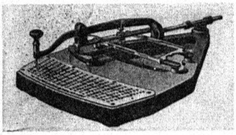
The next development in the recording of statistical information appeared in the regular and continuous registration of births, marriages and deaths as inaugurated in Augsburg in 1501. In England baptismal records were established in London in 1550, and death records, in what were then known as "bills of mortality," in 1592.

Not, however, until 1662 did it become apparent that there was a wealth of information in these records which could be utilized for purposes other than strictly governmental administration. In that year John Graunt took up the bills of birth and mortality registered in the City of London and studied them for three years. At the end of that time he came to the then rather astonishing conclusion that the proportion between the sexes was rather evenly maintained (fourteen boys being born to thirteen girls), and that the ratio of births to deaths was quite uniform. The publication of his studies excited great interest and discussion. It was to overcome the superstition that a special fatality attached itself to the seventh and ninth years of age that the astronomer Halley was induced to study the bills of mortality. As a result of his efforts the first mortality tables were published, showing the proportion of persons in any given number dying in the first and each succeeding year of life. It was from these tables that the probability of life at the various ages was computed, and life insurance companies were established soon after.

Frederick the Great was probably the first to realize the immense value of facts other than those relating purely to population, births and deaths. In 1751 he ordered an enumeration of all cattle within the kingdom, in 1772 of all the factories and their output, and in 1778 information regarding seed and harvesting.

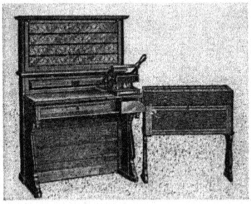
The most serious problem which confronted France at the close of the French Revolution in establishing a new government upon an untried basis, was the lack of census material concerning its population, composition, wealth and energies. Practically the same condition of affairs existed in our own country at the close of the Revolution. The first census was ordered by our Federal Government in 1790, and since then it has been taken regularly every tenth year. The United States, therefore, was the first nation to constitutionally provide for a census in fixed decennial periods.

Henceforth the development of statistics relating to our commercial and industrial life rapidly advanced. The greatest difficulty in compiling statistics, next to the securing of data, lay in the handling of accumulated material. Tabulation by hand was laborious, extremely slow, and more or less inaccurate. The correlation of important facts was limited and the results far from being an exhaustive inquiry. That industry was able to correct these faults and place its accounting procedures on the high plane of efficiency they stand today is in a great measure due to the United States Government.


Original Key Board Punch

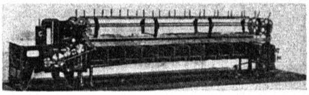
In 1880, at the close of the compilation of the tenth census, the attention of Dr. Herman Hollerith, an engineer, who, as special agent of the United States Census Bureau, had won early recognition as an able and accomplished statistician, was drawn to the need of mechanical aid for census tabulation. Dr. Hollerith began a series of experiments and developed a system for recording the descriptive data of each individual by punching holes in strips of paper, and later in cards. These perforations were adapted to control an electrically actuated mechanism in the form of a counting device. By means of it single classifications of data, or classifications in desired groups, were mechanically obtainable.

Ten years later, at the beginning of the organization of the eleventh United States census, a commission of three experienced statisticians was appointed by the Superintendent of Census to make a practical test of all tabulating systems available for use in the Census Bureau. The report of this commission showed that three methods were investigated and that Dr. Hollerith's punched card method not only was found to be far more rapid than any other, but that in accuracy it far exceeded the others. As a result, this system of tabulation was selected for compiling the returns of the eleventh census. The success attained attracted widespread attention, in foreign countries as well as in our own. Not long after, the same system was used in the compilation of the Austria-Hungarian census.


First Tabulator

The cards used at the time were perforated by a machine known as the keyboard punch, a device that operated somewhat like a pantograph. The machine which counted or tallied the items in the cards was known as the tabulator. It resembled a small upright piano and consisted of two parts: (1) the press, or circuit-closing device, which was located in a position corresponding to the right-hand end of the keyboard; (2) the dials, or counters, which were located in a position corresponding to the upper face where the music rack is set. A sorting box stood as a separate unit to the right of the machine.

A short, and not too technical, description of these primitive ancestors of Electric Tabulating and Accounting Machines which latter have enabled us to inject a new efficiency in our accounting department will give readers of these articles an idea of the remarkable development which took place.


First Automatic Sorting Machine

The press of the original tabulator consisted of a bed plate formed by a series of mercury-filled cups agreeing in number and arrangement with the holes that might be punched in the cards. Above this was a reciprocating box provided with a number of contact points corresponding in position with the center of the mercury cups, so that when a card was placed in the press, and the handle brought down, these points formed circuits in positions conforming to the holes in the cards; the results were registered on the dials above.

If, while certain facts were being tabulated, it was desired to sort the cards according to any data—as, for example, nationality—a sorting box was employed. This contrivance was divided into twenty-four compartments, each closed by a lid held against the tension of a spring catch which formed the armature of a suitable magnet. These magnets were hooked up with the binding posts of the press, according to the data by which the

(Concluded on Page 141)

Civil Engineering In America

Interesting Facts Gathered by David Stevenson, and Published by Him Following a Visit to This Country in 1838, Are Here Related

(Continued from Last Issue.)

CANALS

THE aggregate length of the canals at present in operation in the United States amounts to upwards of 2,700 miles. * * * On the Pennsylvania State canals the passenger boats vary from 12 to 15 feet in breadth and are 80 feet in length; the large-sized boats weigh about 20 tons and cost $1,212.50, and when loaded with a full complement of passengers draw 12 inches of water. They are dragged by three horses at once, which run ten-mile stops. The length of the towline generally used is 150 feet, and the rate of traveling is from four to four and a half miles per hour. * * * The number of boats which passed through the locks of the Schuylkill Navigation in 1836 was 24,470, the various articles taken up the river that year weighed 61,079 tons, and those brought down toward the sea 570,094 tons, of which 432,045 tons were anthracite coal. * * * The Erie Canal was begun in 1817 and completed in 1825. The main line leading from Albany to Buffalo measures 363 miles in length and cost about $6,800,000. This canal is 40 feet wide at the water line, 28 feet at the bottom, and 4 feet in depth. It is now being enlarged to a width of 60 feet and a depth of 7 feet. There are 84 locks, 90 feet long, 15 feet wide; average lift 8 feet 2 inches; total rise and fall 692 feet. * * * Albany is the capital of the State of New York and contains a population of 30,000. Albany may be said to monopolize the trade of the river. It is important from its position at the outlet of the Erie Canal and as the seat of a large basin or depot for the accommodation of canal boats. This basin has an area of 32 acres, and is formed by an enormous dyke, placed lengthwise with the Hudson River, the basin being open at the lower end. The dyke is 4,300 feet long, 80 feet wide, and completely covered with large warehouses.

"In 1836 there were 3,167 canal boats making 67,270 clearances or trips and requiring 118 lockages per day. The whole tonnage during 1836 was 1,310,807 tons of a value of $67,643,343. There was about five tons coming east for one ton going west. * * * The passage money from Albany to Buffalo was $15.30, or 4 cents per mile."

The author lists in a table The Delaware and Hudson Company's Canal, 110 locks; whole height of lockage, 1,073 feet; opened in 1826 with a length of 109 miles and a reported cost of $1,901,641.35.

RAILWAYS

"In 1837 there were no fewer than fifty-seven railways completed and in full operation, whose aggregate length was upwards of 1,600 miles, and there were 33 railways in progress, which when completed will amount to 2,800 miles. In addition, upwards of 150 railway companies have been incorporated; and the works of many will, in all probability, be very soon commenced. * * * The early railways consisted of iron rails and chairs resting on stone blocks, but the intense frost was found to split the stone blocks and to affect the ground in which they were imbedded to such a degree that their positions were materially altered, and the rails were in many cases so much twisted and deranged as to be quite unfit for the passage of carriages. Some had actually to be closed in winter. * * * American engineers have come to no definite conclusion as to what constitutes the best railway. It seems to be generally admitted that the wooden structures are, in most situations, more economical than those formed of stone, and were also less liable to be affected by frost. They are more easily kept in repair, and are more elastic. The rails on the Brooklyn and Jamaica road are 15 feet in length and weigh 39 pounds per yard, are of British manufacture and cost, laid down at New York, $38.80 per ton. * * * The Honesdale and Carbondale (D. & H.) Railroad, 16½ miles long, laid with a single track, and executed for a considerable portion of its length on truss-work (tressle-work), is understood, with machinery, to have averaged $17,460 per mile. * * * The following plan is proposed for the superstructure of the Philipsburg and Juniata Railroad:

"'Sills of white or port oak, seven feet ten inches long, and twelve inches in diame-

> ter, flattended to a width of nine inches, are to be laid across the road at a distance of five feet apart from center to center. In notches formed in these sills, rails of white oak or heart pine, five inches by nine inches in depth, are to be secured, four feet seven inches apart, measured within the rails. On the inner edge of these rails, plates of rolled iron two inches wide by half an inch thick, resting, at their points of juncture, on plates of sheet iron one-twelfth of an inch thick, and four and a half inches long, are to be spiked, with five-inch wrought iron spikes. The inner edges of the wooden rails are to be trimmed slightly levelling, but flush at the point of contact with the iron rail, and to be adzed down outside the iron to pass off rain water.'

"* * * On the State railways, and also on many of those under management of incorporated companies, fifteen miles an hour is the rate of traveling fixed by the administration of the rail way, and this speed is seldom exceeded. * * * I traveled by horse power on the Mohawk and Hudson Railway, from Schenectady to Albany, a distance of sixteen miles, and the journey was performed in sixty-five minutes, being at the astonishing rate of fifteen miles an hour. * * * The American engines, with their boilers filled, weigh from twelve to fifteen tons, and cost about $7,275. They have six wheels. The fuel used on most of the railways is wood, the anthracite burner on the Baltimore and Ohio, built by Gillingham and Winans at Baltimore, has vertical cylinders, with a vertical tubular boiler, and weighs about eight tons. * * *"

The author went over the Portage Railroad from Hollidaysburg to Johnstown, 36 miles, at the rate of about five miles per hour. He lists in the table of "Principal Railways" the Lackawaxen (D. & H.), 16½ miles long. He deals with common roads, saying that the difficulty of obtaining materials and the effects of frost form objections to macadamized roads. Under bridges he speaks of Town's "Patent Lattice Bridge," and Long's "Patent Truss Bridge," and of bridges over the Delaware at Trenton, over the Schuylkill at Philadelphia, over the Susquehanna at Columbia, and over the rapids at Niagara Falls. He describes also the work done in building water works and the installation of lighthouses.

The book gives a very intelligent picture of the engineering works of the country as inspected by the author.

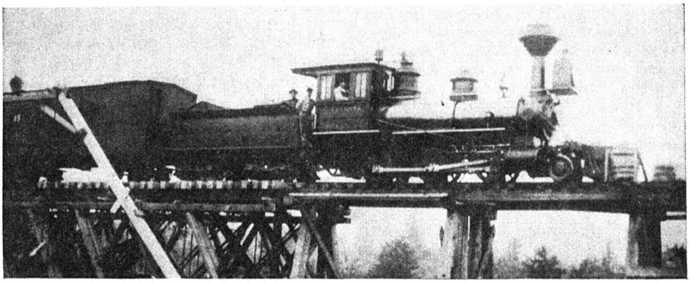
(The End.)

Long A Chateaugay Runner

(Continued from Page 132)

Favreau of Plattsburg and they have one son and two daughters. The son, HORACE A., is employed as a locomotive fireman between Whitehall and Mechanicville, and resides at Saratoga Springs.

He is one of the first brotherhood men on the "north end," having first joined Division No. 209 of Whitehall, Brotherhood of Locomotive Firemen. He is now, however, a member of Division No. 217, Brotherhood of Locomotive Engineers, also of Whitehall. Other affiliations are with the Methodist Episcopal church of his home city, The Delaware and Hudson Veterans' Association, and the Plattsburg Young Men's Christian Association.



Mr. Winters with Engineer Fosburg and the Dannemora on the Cadyville trestle (72 ft. high) over the Saranac river. (1884)

Nine Digits, A Cipher and Punched Holes

(Continued from Page 138)

cards were to be sorted. When a card was put in the press the armature corresponding with the given record was attracted, thus releasing the corresponding lid which remained open until the card was deposited in that division and the lid closed by hand.

The use of electric tabulating machines for compiling population statistics presented the need of other mechanical devices for compiling agricultural, manufacturing and similar classes of data dealing with quantities and amounts. Accordingly, a so called "integrating machine" was developed. It added digits from one to nine in each column, the accumulations being determined by the location of the holes in the card and was the immediate predecessor of the modern electric tabulating machine now used extensively for railroad accounting, sales analysis, shop cost accounting, and similar purposes.

During the era of the pantograph type of punch the fields, or groups of characters, on the tabulating cards were arranged in a sequence proceeding from the upper left-hand corner of the card across the top and then from right to left across the bottom. In the work of punching cards for agricultural and railroad statistics, etc., it was found to be more convenient to have the card made so that the fields would be in vertical columns, which arrangement would facilitate the punching and reading of the cards as well as the tabulating of the data they contained. For this purpose a new type of card was designed and the key punch altered to accommodate the new card. While various improvements have been made from time to time on this device it is substantially the same in principle today as when first conceived. (For illustration see previous article.)

The sorting machine was then redesigned, becoming fully automatic. The next development was to place it in a vertical instead of horizontal position as a means of conserving floor space. Recently a new model was brought out (as illustrated in the previous article), which in operation is almost silent, and from the operator's standpoint is preferable, inasmuch as the pockets are all equidistant from the floor and at a height which brings all sorted cards within easy reach.

During the process of tabulating the eleventh census (1890) Dr. Hollerith was apprised of the need of some device to aid the auditing of railroad freight accounts and the compilation of commodities statistics. Experiments thereupon were begun and the discovery made that such work could be done to advantage by this method.

At the time the sorter was redesigned a change was also made in the electric tabulator. The new principle involved—and still embodied in these machines—was to pass the cards between an arrangement of wire brushes and fixed metal contacts which permitted electrical connections to be made through the punched holes and actuate adding wheels. In this manner the amounts and quantities punched in tabulating cards are automatically totaled.

A constant improvement in this unit has been taking place, the total-printing and the listing features—whereby the various statistical items are printed, totaled, and the totals printed—being the most important. (Illustrated in the previous article).

The United States Government, as the foregoing shows, was responsible for the invention of Electric Tabulating and Accounting Machines, but a railroad was the pioneer commercial user. Our own company has done a little pathfinding itself in this connection, and the adventures will be chronicled in future issues of THE BULLETIN.

The Y. M. C. A. Wants You!

ON Monday, May 2, the annual membership drive of the Broadway Railroad Young Men's Christian Association of Albany, will end. This means that you still have the chance to enroll and help our team, the "Blues," captained by J. E. FAIRHEAD, superintendent of the Saratoga division, finish first in reaching the goal of 2,600 members which has been set for this year. Aligned with the "Blues" are Boston and Albany and American Express Company employes. The opposing team, the "Reds," is captained by W. H. WOOD, assistant superintendent of the New York Central, and is composed of employes of that road. Colonel J. T. LOREE, vice president and general manager of our system, is chairman of the "Y" Board of Managers.

Affording dormitory, reading room, recreational and other facilities the "Y" has long been the haven for railroad men when away from their own firesides, and for local members who enjoy a club atmosphere for a few hours when off duty. In 1918, the Albany Broadway "Y" had a membership of 525; in 1926 it was 2,350 which gave it a place of second rank among more than two hundred such Associations in this country. A bigger "Y" means a better "Y," therefore the present campaign.

What makes you think Ernest don't know anything about sports?

Well, he told me he knew Babe Ruth when she was a chorus girl.

"The Show Off" Pleases Albany

(Continued from Page 135)

dren of Delaware and Hudson employes, and at Rouses Point for the benefit of the Knights of Columbus.

At each of these places, of course, the local athletic association retained a small percentage of the profits for the purpose of defraying certain expenses incident to its activities. The proceeds of the performances in Albany were used by the general Association to finance all manner of athletics wherever on the system there might be need of such assistance. It is this financial backing that has made possible our entry into Industrial League activities, the sending of teams to the annual meeting of the American Bowling Congress, the participation in various local meets, and the bringing together of teams at various outlying repair points not possessing the necessary funds to otherwise have made such meetings possible. The Association also has rendered valuable assistance to its division units and to individuals in their purchases of sporting goods and in other ways. Baseball is not encouraged or supported to the exclusion of other sports, but basketball, swimming, skating, boxing, indoor baseball, hockey, bowling and nearly every form of sport, indoor and outdoor, flourishes in its season.

Few there are who do not enjoy athletics in one form or another, but however great and genuine may be that liking it is well known that it takes money, and a lot of it, to make such ventures anything like what they should be. Money must be dug up from somewhere and The Delaware and Hudson Athletic Association has assumed that somewhat onerous responsibility. Its is not an easy task. In the arrangement of its theatrical productions alone, much time is spent. The players gratuitously contribute from sixty to one hundred nights of their time, not to mention the severe drilling of a dramatic director to which they also willing submit. Others contribute their time to supervision and in still other ways in order that no such enterprise may fail of success.

Among the notable accomplishments realized under the name of the Association was the organization, in 1925, of a male glee club of thirty members from all walks of railroad life—mechanics, clerks, officers, and others—which presented concerts in New York, Philadelphia, Albany, Quebec, Buffalo, Syracuse, Carbondale and Plattsburg, and on numerous occasions entertained groups of our employes. Everywhere this club was exceptionally well received and, as a result, gained an enviable reputation that was countrywide. During the past year, however, the club has been inactive, but plans are now being formulated for its reorganization and a program which will be presented in numerous cities during the coming season is being prepared.

It has been the policy of the Association to conduct its affairs without any ostentation whatsoever, believing that its aims as exemplified by its several activities would win for it the necessary and much desired support of all employes. That its faith in human nature has not been misguided has been well proven from time to time and an immediate broadening out of its activities has been a direct result. It is an opportune time, however, to remind our employes at division and other points of their forthcoming opportunity to contribute toward the work being done by the Association, by getting behind the production of "The Show Off."

The better financially established the Association may become—and, incidentally, the Management of our road has ruled that it must be self-sustaining—the better able it will be to assist its branch Associations and this year it is extending its assistance directly to them. Plattsburg is the one exception, but every railroad man in that city will appreciate just how valuable an asset a hospital is to any community.

Each one helping a little, buying a ticket and getting some friend to buy one, will do the trick. And in return for this favor, the Association promises an evening's entertainment that will be pleasing and satisfactory in every way.

What Is Courtesy?

According to Charles B. Cook, treating a patron like a rich uncle in the hope of getting something out of him is not courtesy—that's diplomacy.

Promptly waiting upon a patron when he enters the office is not courtesy—that's duty.

Listening to complaints attentively and without remonstrance is not courtesy—that's forbearance.

Helping a pretty woman to her car or carrying her bundles is not courtesy—that's pleasure.

On the contrary, courtesy springs from the heart—not from the mind. It is born of an instinctive desire to be kind and helpful. It is not to be confused with the liquid veneer of politeness, even though the latter is not without its claim to commendation.

Only the generous in spirit are truly courteous.

—*Exchange.*

Clicks from the Rails

Auto Conquers Death Valley

Death Valley, in Utah, lowest point on the American continent, has been conquered by the automobile bus. Though desolate, dangerous and strange, 310 feet below sea level and encompassed by high mountains, including Mt. Whitney, highest point in the United States, travelers may now safely negotiate this mysterious realm where death always stalked the traveler heretofore and won its quest. Buses this spring have been operating across the desert, connecting with railroads that approach it but do not traverse the plain. The travel season opened on February 1, last, but will begin in the fall hereafter and close on May 15, each year, for the valley becomes a perfect inferno under the summer's sun, temperatures running up to 140 degrees and higher.

Death Valley won its weird distinction because of the many, many prospecting parties that have been lured to certain death by its numerous mirages and stretches of salt that appear like silvery streams of water. Graves without number dot the desert and tales involving fatal exploits without number are associated with it.

* * *

Make Blind-End Riders Pay

" Over $18,393," says the *Railway Age,* " was secured by the Denver & Rio Grande from 5,233 head-end passenger train and freight train riders out of a total of 28,488 apprehended during 1926." The plan of rounding up hoboes and, if money was found in their possession, instructing them to buy a ticket from the point at which they boarded the train, was adopted in September, 1924. During 1925, 3,636 of 36,061 hoboes thus apprehended, paid $11,227 in fares, under protest.

* * *

To Whom Is Industry Indebted ?

" Labor may feel it is the first duty of industry to pay a living wage. The consumer often feels industry's first duty is to him. But the public may reasonably demand that it share with industry and labor the further distribution of profits after the latter two have had a fair return on their capital and labor invested."—*From the Bistol (Pa.) Courier.*

Tried to Steal An Engine

Some of our readers will recall, no doubt, an incident of thirty years ago, brought again to public attention by the *Albany Evening News* on April 1, last, in its column "Albany Thirty Years Ago—News from *Albany Journal files.*" It was reported as follows:

"A man who gave his name as William Peters attempted to steal a locomotive this morning. He wanted to go to Ballston, but had only nineteen cents, and the fare is eighty-seven cents. Waiting until a detached locomotive was vacated, he jumped into the cab and released the brakes. He accidentally blew the whistle and was caught before he had an opportunity to open the throttle."

* * *

Holds Unique Swimming Record

Bill Baxter of Kokomo, Ind., according to an Associated Press dispatch, holds the railroad swimming record of the World. " How did you get so wet in a box car?" a yardmaster asked as he stopped Bill as he was leaving the hobo Pullman. " Box Car! I've been in the dark and damp interior of that big 2,000-gallon tender and I've set a world's record for long distance swimming," Bill replied.

In attempting to dodge a brakeman, Bill dropped through the manhole of the tender. He found the water too low to reach the top and a little too high to reach the bottom. Accordingly, he enjoyed a thirty-mile swin until the water became low enough to reach the bottom.

* * *

Exit the pay car on the Boston and Albany railroad. Henceforth employes of that system, who, according to the law of Massachusetts, are paid weekly, will receive checks instead of currency. The new arrangement will greatly expedite the system of " paying off," it is believed.

* * *

Serviceable locomotives in storage on Class One railroads on January 15, last, totaled 4,600 compared with 4,601 on January 1. On the same date, 9,371, or 15.1 per cent of the locomotives on the line, were in need of repairs.

Finds Graft On Roumanian Roads

Until only recently the purchase of a ticket was merely incidental to a series of unexpected levies that were soon to be imposed upon all who boarded a train on the Roumanian state railways so rampant was the practice of extortion among its employes. General Jonescu, recently appointed director of railways, became a victim of this evil while traveling in disguise. He was compelled to pay double the scheduled fare, obliged to tip the collector at the turnstile leading to the station platform because his ticket was declared to be " out of order " ; paid another consideration to tne train guard who found his ticket wrongly dated ; was fined for occupying a smoking compartment while not smoking ; had his suit case stolen ; and last, but not least, was asked by a purveyor, to whom he represented himself as a merchant who had concluded an agreement with the railroad and desired to obtain the necessary documents, " How much are you willing to pay?" All the culprits were dismissed without ceremony, on the following day.

* * *

Three Men One Road's Force

Nineteen miles of railroad in western Kansas, known as the Kansas and Oklahoma, is operated in every detail by a force of only three men. One serves as ticket and freight agent, train dispatcher, conductor, fireman, claim agent, section foreman and brakeman ; another, a retired Rock Island engineer, operates the locomotive ; and the third works for about two months during the busy season as assistant fireman and trackman.

* * *

100 N. & W. Veterans Retired

During 1926 an even 100 Norfolk and Western veterans were placed on the retired list ; forty-three because of having reached the age of seventy years, and fifty-seven because of permanent disabilities. Sixteen of these men were under sixty-five years of age and sixteen were between sixty-five and sixty-nine. Since 1917 an average of ninety-three employes have been retired on pension each year.—*Norfolk and Western Magazine.*

MAY

COME walk with me along this willowed lane,
Where, like lost coinage from some miser's store,
The golden dandelions more and more
Glow, as the warm sun kisses them again!
For this is May! who with a daisy chain
Leads on the laughing hours; for now is o'er
Long winter's trance. No longer rise and roar
His forest-wrenching blasts. The hopeful swain,
Along the furrow, sings behind his team;
Loud pipes the redbreast troubador of spring,
And vocal all the morning copses ring;
More blue the skies in lucent lakelets gleam;
And the glad earth, caressed by murmering showers,
Wakes like a bride, to deck herself with flowers!

— *Henry Sylvester Cornwell*